Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-4. (Canceled).

5. (New) A vapor phase growth apparatus for performing a vapor phase growth of a silicon epitaxial layer on a main surface of a silicon single crystal substrate while heating the silicon single crystal substrate placed on a pocket formed on a susceptor, from both sides, wherein

the pocket has an outer peripheral side part which supports a rear surface of the silicon single crystal substrate and an inner peripheral side part which is kept in a state of being more recessed than the outer peripheral side part in an inside of the outer peripheral side part, and

the susceptor has a warped inverted U-shaped longitudinal sectional shape.

6. (New) The vapor phase growth apparatus as claimed in claim 5, wherein

the pocket is formed for a silicon single crystal substrate having a diameter of 300 mm or more, and

a maximum distance between a bottom surface of the inner peripheral side part in the pocket and a rear surface of the silicon single crystal substrate is less than 0.4 mm.

7. (New) The vapor phase growth apparatus as claimed in claim 5 wherein

the susceptor is a type of a single wafer, and

a curvature on a rear surface side of the susceptor is 1.75×10^{-5} mm^{-1} or less.

8. (New) The vapor phase growth apparatus as claimed in claim 6 wherein the susceptor is a type of a single wafer, and

a curvature on a rear surface side of the susceptor is 1.75×10^{-5} mm^{-1} or less.

9. (New) A vapor phase growth method, comprising performing a vapor phase growth of a silicon epitaxial layer on a main surface of a silicon single crystal substrate using the vapor phase growth apparatus as claimed in claim 5.

10. (New) A vapor phase growth method, comprising performing a vapor phase growth of a silicon epitaxial layer on a main surface of a silicon single crystal substrate using the vapor phase growth apparatus as claimed in claim 6.

11. (New) A vapor phase growth method, comprising performing a vapor phase growth of a silicon epitaxial layer on a main surface of a silicon single crystal substrate using the vapor phase growth apparatus as claimed in claim 7.

12. (New) A vapor phase growth method, comprising performing a vapor phase growth of a silicon epitaxial layer on a main surface of a silicon single crystal substrate using the vapor phase growth apparatus as claimed in claim 8.